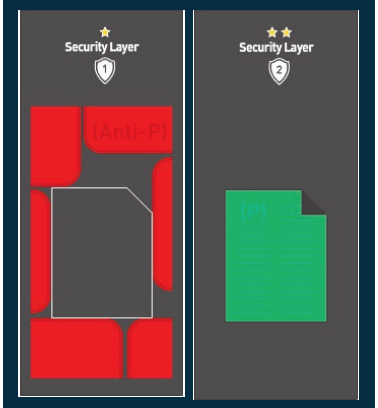
Negative Authentication System

ENVIORNMENTAL APPLICATION

AntiPion is applicable to mobile device authentication and cloud environments.

TWO LAYER AUTHENTICATION APPROACH

Approach allows the system to identify suspicious login attempts while no sensitive data is under attack on layer 1. Only the anti-passwords are stored on the attacked server.



- It provides a robust solution in Immunizing authentication system (local, remote, and online) by putting an additional layer of password protection (invisible) to the user.
- Every access requests first check for negative authentication (AntiPions) and keeps users away from authentication (password) system
- With this approach, it is harder (if not impossible) to discover any individual password even though Anti-Passwords (AntiPions) are being compromised.
- It can eliminate brute-force attack on password database as all illegitimate users (hackers, crackers) are filtered out before allowing them to access the positive password verification system.

IARPA Awards U of M-MIT Partnership Important Cyber-Security Research Grant

Dr. Dipankar Dasgupta, University of Memphis computer science professor, and John R. Williams at the Massachusetts Institute of Technology have been awarded a one-year $853,289 grant to develop a biologically inspired way to secure computer information and networked systems. The funding from the Intelligence Advanced Research Projects Activity (IARPA) will support development of a novel "Negative Authentication System," which is expected to immunize password-protected information systems from cyber-attacks.

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